

**REMARKS**

In the Office Action mailed on October 24, 2005, the Examiner allowed claims 2-15, rejected claims 16-20 under 35 U.S.C. § 112, 2<sup>nd</sup> paragraph, as being indefinite but otherwise allowable, and rejected claims 21-30 under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 6,119,098 to *Guyot et al.* in view of U.S. Patent No. 6,850,252 to *Hoffberg*. As a preliminary matter, Applicants thank the Examiner for the allowance of claims 2-15 and the indication of allowable subject matter in claims 16-20.

*Section 112 Rejections of Claims 16-20*

In rejecting claims 16-20 under 35 U.S.C. § 112, 2<sup>nd</sup> paragraph, the Examiner stated that the claims are indefinite due to the phrase “any additional learning gained” recited in claim 16 and recited indirectly by claims 17-20, which depend from claim 16. By this Amendment, Applicants have amended claim 16 to remove the language at issue and to overcome the Examiner’s rejection of claims 16-20 under section 112. As the Examiner noted in the Office Action, claims 16-20 should be allowable after being rewritten to remove the section 112 rejections. (10/24/05 Office Action, p. 7.)

*Section 103 Rejections of Claims 21-30*

Claims 21-30 were rejected under 35 U.S.C. § 103(a) as being obvious over *Guyot et al.* in view of *Hoffberg*. To establish a *prima facie* case of obviousness under 35 U.S.C. § 103(a), the references, taken alone or combined, must teach or suggest each and every element recited in the claims. M.P.E.P. § 2143.03 (8<sup>th</sup> ed. 2001, revised August 2005). Because claims 21-30 recite several elements that are neither taught nor

suggested by *Guyot et al.* and *Hoffberg*, taken individually or in combination, Applicants respectfully traverse the section 103 rejections of claims 21-30.

Claim 21 recites a computer-implemented method for selecting Internet advertisements for presentation comprising, among other things, “establishing a customer profile for a customer, the customer profile including long-term attributes related to a category of advertisements of interest to the customer and short-term attributes related to a product of interest to the customer” and “for an Internet advertisement, using the long-term attributes and the short-term attributes to compute a click probability estimate representing a likelihood that the customer will respond to the Internet advertisement.” *Guyot et al.* and *Hoffberg*, taken alone or together, fail to teach or suggest the subject matter defined by claim 21 including, for example, these claim elements.

Regarding computing a click probability estimate representing a likelihood that the customer will respond to an advertisement, the Examiner stated that *Guyot et al.* teaches this element because it “provides advertisements to the ‘client’ application that are targeted to each individual subscriber, based on a personal profile provided by the subscriber.” (*Guyot et al.*, col. 1, ll. 55-65; Office Action, p. 3.) However, a general statement that advertisements are targeted based on a user profile does not provide a teaching or suggestion of using long-term attributes and short-term attributes to **compute a click probability estimate representing a likelihood that the customer will respond** to the Internet advertisement.

The Examiner also noted that *Guyot et al.* states that advertisements are shown in a window that is continuously displayed on the subscriber's computer so that "the probability that a subscriber will view an advertisement that is specifically targeted for the subscriber is relatively high." (*Id.*, col. 2, ll. 1-8.) Although the reference uses the word "probability," there is no teaching or suggestion that a probability is actually computed or what factors might be used to compute a probability that the subscriber will view an advertisement. Furthermore, the probability of a user seeing an ad shown on his computer screen is unrelated to computing a click probability estimate representing a likelihood that a customer will respond to an Internet advertisement.

Thus, contrary to the Examiner's assertion, *Guyot et al.* does not teach or suggest for an Internet advertisement, using the long-term attributes and the short-term attributes to compute a click probability estimate representing a likelihood that the customer will respond to the Internet advertisement. Accordingly, a *prima facie* case of obviousness has not been made at least because the Examiner failed to show a teaching or suggestion of the subject matter defined by claim 21 including, for example, this element.

The Examiner also has not shown that the cited references, taken alone or in combination, teach or suggest "determining an uncertainty of the click probability estimate based at least in part on a number of times the Internet advertisement has been previously presented," as recited by claim 21. The Examiner acknowledged that *Guyot et al.* does not disclose this element, but alleged that *Hoffberg* does. (10/24/06 Office Action, p. 3.) However, *Hoffberg* merely discloses that "a conditional probability

of a subsequent action by the user may be assessed for each interaction....” (*Hoffberg*, col. 44, ll. 37-39.) The reference goes on to explain that this may be “a calculated probability that the user will subsequently purchase a good or service.” (*Id.* at ll. 42-43.) Although the reference discloses calculating a probability that a user will make a subsequent purchase, nowhere does it teach or suggest a separate step of **determining an uncertainty of the click probability estimate** based at least in part on a number of times the Internet advertisement has been previously presented.

Thus, the Examiner has not shown that *Guyot et al.* and *Hoffberg*, individually or in combination, teach or suggest determining an uncertainty of the click probability estimate based at least in part on a number of times the Internet advertisement has been previously presented, and a *prima facie* case of obviousness has not been made for this additional reason.

Because neither *Guyot et al.* nor *Hoffberg* teaches or suggests computing a click probability estimate and determining an uncertainty of the click probability estimate, the references also do not teach or suggest “**using the click probability estimate and the uncertainty to determine whether to present the Internet advertisement to the customer,**” as further recited by claim 21. For this additional reason, a *prima facie* case of obviousness has not been made with respect to claim 21.

For the foregoing reasons, the subject matter defined by claim 21 would not have been obvious over the cited references. Claims 22-24 depend from claim 21 and therefore also define nonobvious subject matter at least by virtue of their dependence

from a patentable base claim. Accordingly, Applicants request the withdrawal of the section 103 rejections of claims 21-25.

Claim 25 recites a computer-implemented method for optimizing Internet advertising selection comprising, among other things, “establishing an advertisement profile for each of a plurality of advertisements, each advertisement profile including an expected revenue based on potential placement of the corresponding advertisement and a measure of uncertainty based at least in part on a number of times the corresponding advertisement has been placed.” *Guyot et al.* and *Hoffberg*, taken alone or together, fail to teach or suggest such a method.

*Guyot et al.* discloses a database storing “Advertisement Data [that] preferably includes, for each advertisement, the identification of the advertiser..., the time frame during which the advertisement should be displayed..., the size of the advertisement [and] the number of times the advertisement has already been displayed.” (*Guyot et al.* col. 4, ll. 1-14.) Contrary to the Examiner’s allegation, nothing in the reference discloses an advertisement profile including an expected revenue based on potential placement of the corresponding advertisement.

Furthermore, as the Examiner admitted, *Guyot et al.* does not disclose a measure of uncertainty. *Hoffberg* does not cure this defect. Instead, *Hoffberg* merely discloses “a calculated probability that the user will subsequently purchase a good or service.” (*Hoffberg*, col. 44, ll. 42-43.) Although the reference discloses calculating a probability that a user will make a subsequent purchase, nowhere does it teach or suggest an advertisement profile including an expected revenue based on potential

placement of the corresponding advertisement and **a measure of uncertainty based at least in part on a number of times the corresponding advertisement has been placed**. Thus, a *prima facie* case of obviousness has not been made because there has been no showing of a teaching or suggestion of the subject matter defined by claim 25 including, for example, this element.

Because *Guyot et al.* and *Hoffberg*, taken together or separately, fail to teach or suggest an advertisement profile including an expected revenue and a measure of uncertainty, they also fail to teach or suggest "selecting which of the plurality of advertisements to present to the customer **based on the estimated probability of the customer responding to the advertisement, the expected revenue, and the measure of uncertainty**," as further recited by claim 25. For this additional reason, a *prima facie* case of obviousness has not been made with respect to claim 25.

For the foregoing reasons, claim 25 defines subject matter that would not have been obvious over the cited references. Claims 26-30 depend from claim 25 and therefore also define nonobvious subject matter at least by virtue of their dependence from a patentable base claim. Accordingly, Applicants request the withdrawal of the section 103 rejections of claims 26-30.

#### *Conclusion*

In view of the foregoing amendments and remarks, Applicants respectfully request the reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge  
any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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